

REMARKS

The Applicants have given careful consideration to the Office Action mailed February 6, 2003. In view of the arguments made herein, reexamination and reconsideration of the application are respectfully requested. Claims 1-19 remain in the application. Claims 20-22 have been added.

The Office Action

In the Office Action mailed February 6, 2003:

claims 1-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,411,940 to Egendorf ("Egendorf") in view of U.S. Patent No. 5,956,391 to Melen ("Melen");

claims 1-19 were further rejected under 35 U.S.C. § 112, second paragraph, for failing to point out and precisely claim what the Applicants regard as the invention.

The Present Application

By way of brief review, the present application is directed to systems and methods for monitoring or recording aspects of a production process. The invention is useful where a machine is capable of producing a product in a user-customizable manner and where the user is charged for that production and not necessarily for the machine itself. For example, the invention can be applied in document production machines, such as, for example, photocopiers and electronic publication equipment. In such systems, customers can be charged based on various aspects of produced products. For example, customers can be charged on a sheet-by-sheet basis, based on whether or not one or two sides of a sheet are printed on, whether or not color toners are used, whether or not several sheets are stapled or otherwise fastened together, whether sets of documents are shrink wrapped together, whether or not the production of a document is diagnostic in nature, based on the size of the printed sheet, and on the basis of many other aspects.

It is desirable to be able to customize a billing strategy for a particular customer or a particular market segment. Additionally, it is desirable to be able to reuse billing software in new machine designs.

The present invention provides a system and method for reusing billing systems while allowing the systems to be fully customizable from market to market and from machine type to machine type. For example, embodiments of the present invention include billing modules which read uploadable, updatable or modifiable billing

strategies. For example, the billing strategies explain to the billing module the kinds of parameters that will be monitored in a particular machine, and the kinds of meters that should be implemented with regard to the monitored parameters. These billing strategies can be updated or modified on a market-to-market or machine-to-machine basis without requiring software to be rewritten or customized. Instead, only the information in the coded billing strategy need be revised or uploaded. In this way, customizing billing for a particular customer becomes a configuration issue and not a software revision issue.

The Cited References

It is respectfully submitted that the primary reference of the Office Action to Egendorf is unrelated to the subject matter of the present application. Egendorf discloses an Internet billing method comprising establishing an agreement between an Internet access provider and a customer and an agreement between an Internet access provider and a vendor, wherein the Internet access provider agrees with the customer and the vendor to bill the customer and remit to the vendor for products and services purchased over the Internet by the customer from the vendor (Abstract). Egendorf discloses that the customer may select from among a plurality of billing methods. That is, the customer may indicate which account of the customer should be billed. For example, the customer may indicate that a credit card or a phone company account should be billed. However, the selection of a billing account is not the selection of a -- billing strategy -- as disclosed and claimed in the present application.

Egendorf does not disclose or suggest the configurable billing system for a machine, the configurable billing system for a document processing system, the document processing system including a configurable billing system, nor does Egendorf disclose the method for developing and using a universal billing module disclosed and claimed in the present application.

Melen discloses an Internet billing system wherein a terminal connected to the public telephone network has access to an Internet connecting node by dialing a service number. A server in the access node gives the terminal a temporary IP address and sets up a connection to an area network or to the worldwide Internet offering chargeable services. Melen allegedly discloses a method for binding an A-number and the IP address to each other and, thus, provides for billing the user for the charge of the services. However, Melen does not disclose or suggest the configurable billing system for a machine, the configurable billing system for a document processing system, the

document processing system including a configurable billing system, nor the method for developing and using a universal billing module disclosed and claimed in the present application.

The Claims are Unobvious

Claims 1-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Egendorf in view of Melen.

Claim 1 recites a configurable billing system for a machine, the machine operative to output a product or service and including a plurality of aspect sensors, the sensors operative to detect a delivery of aspects of the product or service and to report the delivery to the billing system, the billing system comprising a coded billing strategy defined for the machine, and a plurality of meters updated by the billing system for recording the delivery of the aspects of the product or service based on the billing strategy whereby the billing system tallies the aspects in a predefined manner.

In rejecting **claims 1-19**, the Office Action asserts that Egendorf teaches a billing system in which items of interest are displayed and whereby the operation is described by outputs. However, **claim 1** of the present application does not claim an Internet billing system in which items of interest are displayed and whereby the operation is described by outputs. The Office Action also asserts that Egendorf teaches billing different accounts with different billing strategies. However, **claim 1** does not claim billing different accounts. In support of the assertion that Egendorf teaches billing different accounts with different strategies, the Office Action directs the attention of the Applicants to column 6, lines 22-60 of Egendorf. However, this portion of Egendorf discloses that a customer can specify a particular billing account, for example, a credit card account, a bank account, a telephone number account, a cable television account or an online services account. The specification can provide that one account will be used for certain transactions and a different account for other transactions. For example, a telephone account can be used for transactions less than \$5.00 and a bank account for transactions of at least \$5.00. Thereafter, whenever a transaction amount is to be billed, it will be billed to that specified billing account. However, the specification of accounts to which transaction amounts are to be charged is not -- the coded billing strategy defined for a machine -- that is disclosed and claimed in the present application.

The Office Action further asserts that Egendorf teaches a transaction completion mark as well as an impression. However, **claim 1** does not recite a transaction complete mark or an impression. Furthermore, the Applicants have reviewed column 5, lines 38-

55, referenced by the Office Action and find no disclosure of a transaction completion mark. Similarly, the Applicants have reviewed column 5, lines 25-28, also referenced by the Office Action, and are unable to find any disclosure of an impression. Clarification is respectfully requested.

In further explanation of the rejection of **claims 1-19**, the Office Action asserts that Melen teaches that the billing information is output at a terminal which may be a printer as well as storing a billing strategy in machine-readable form. However, the claims of the present application are not directed to outputting billing information on a printer. Furthermore, Melen does not disclose or suggest that billing information is output at a terminal which may be a printer.

In support of the assertion, the Office Action directs the attention of the Applicants to FIG. 4 of Melen. However, FIG. 4 is a flow chart outlining the method for binding an A-number and an IP address to each other. The flow chart refers to the term -- terminal --. However, Melen uses the term terminal to refer to computers (Abstract, line 1; column 2, lines 3-35). Therefore, it is respectfully submitted that Melen does not teach that billing information is output at a terminal which may be a printer. Furthermore, even if Melen does teach that billing information is output at a terminal which may be a printer, the claims of the present application are not directed toward outputting billing information at a terminal or printer.

In support of the assertion that Melen teaches storing a billing strategy in machine-readable form, the Office Action directs the attention of the Applicants to column 8, lines 25-49. However, the referenced section is directed to a procedure for a user moving a chargeable service advertised on some www-page within the MAN-network. The user can make a request for such a move by clicking on a link on the page. The request goes to a local area network proxy server, which, as a response to the request, calls the service provider server. When the connection is set up, the service provider server has received information about the local area network proxy servers, IP request requesting the access, and the proxy server itself knows the user's IP address. The proxy server informs both addresses to the intelligent network, which now knows the A-number connection using the IP address in question has moved to a certain chargeable service.

It is respectfully submitted that this section of Melen is unrelated to storing a billing strategy in machine-readable form. Furthermore, this section is clearly unrelated to billing strategies as they are disclosed and claimed in the present application.

As explained above, **claim 1** recites a plurality of meters updated by a billing system for recording delivery of aspects of products or services based on a billing strategy whereby the billing system tallies the aspects in a predefined manner. The Office Action does not even assert that Egendorf or Melen disclose or suggest this element of **claim 1**.

For the foregoing reasons, Egendorf and Melen do not disclose or suggest the elements for which they are relied upon, and **claim 1**, as well as **claims 2-5** which depend therefrom, is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Additionally, **claim 2** recites the coded billing strategy comprises a list of aspects of interest. A disclosure of a descriptor of items that a customer might purchase is not a disclosure of the coded billing strategy comprising a list of aspects of interest disclosed and claimed in the present application.

For this additional reason, **claim 2** is unanticipated and unobvious in light of Egendorf or Melen taken alone or in any combination.

Claim 3 recites the coded billing strategy comprises a list of meters. The Office Action does not assert nor do the references disclose or suggest a billing strategy comprises a list of meters.

For the foregoing additional reasons, **claim 3**, as well as **claim 4** which depends therefrom, is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 4 recites the coded billing strategy comprises information associated with the list of meters, the information describing the function of the meters. Neither Egendorf nor Melen disclose or suggest a billing strategy that comprises information describing the function of meters.

For the foregoing additional reason, **claim 4** is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 5 recites the coded billing strategy comprises information representing a set of functions describing the operation of a set of meters. Neither Egendorf nor Melen disclose or suggest a coded billing strategy comprises information representing a set of functions describing the operation of a set of meters.

For the foregoing additional reasons, **claim 5** is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 6 recites a configurable billing system for a document processing system, the document processing system operative to produce documents and including a plurality of aspect sensors operative to detect document production events and to report the aspects of the document production to the billing system, the billing system comprising a billing strategy description accessible by the billing system, a plurality of meters defined in the billing strategy, and a billing module operative to update the plurality of meters according to the billing strategy. As explained above, neither Egendorf nor Melen disclose or suggest a configurable billing system for a document processing system. Additionally, arguments similar to those submitted in support of **claims 1 and 3** are submitted in support of **claim 6**.

For the foregoing reasons, **claim 6**, as well as **claims 7-15** which depend therefrom, is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Additionally, **claim 7** recites the billing strategy description comprises a list of aspects of interest. Neither Egendorf nor Melen disclose or suggest a billing strategy that includes a list of aspects of interest.

For the foregoing additional reasons, **claim 7**, as well as **claims 8-15** which depend therefrom, is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 8 recites the list of aspects of interest comprises an impression count. Neither Egendorf nor Melen disclose or suggest an impression count. **Claim 9** recites the list of aspects of interest comprises an impression event flag. Neither Egendorf nor Melen disclose or suggest an impression event flag. **Claim 10** recites the list of aspects of interest comprises a set count. Neither Egendorf nor Melen disclose or suggest a set count. **Claim 11** recites a set completion flag. Neither Egendorf nor Melen disclose or suggest a set completion flag. **Claim 12** recites a diagnostic impression flag. Neither Egendorf nor Melen disclose or suggest a diagnostic impression flag. **Claim 13** recites a media descriptor. Neither Egendorf nor Melen disclose or suggest a list of aspects of interest comprises a media descriptor. **Claim 14** recites a highlight color flag. Neither Egendorf nor Melen disclose or suggest a highlight color flag. **Claim 15** recites a full color flag. Neither Egendorf nor Melen disclose or suggest a full color flag.

For the foregoing additional reasons, **claims 8-15** are unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 16 recites a document processing system comprising a print engine, a configurable billing system operative to follow a billing strategy and to record the occurrence of document production events described in the billing strategy, and a marker module operative to control the print engine in the production of documents, and to report document production events to the billing system. As explained above, it is respectfully submitted that neither Egendorf nor Melen disclose a document processing system. Neither Egendorf nor Melen disclose or suggest a print engine. Neither Egendorf nor Melen disclose or suggest a configurable billing system operative to follow a billing strategy and to record the occurrence of document production events described in the billing strategy. Neither Egendorf nor Melen disclose or suggest a marker module operative to control a print engine in the production of documents and to report the document production events to the billing system.

For the foregoing reasons, **claim 16**, as well as **claims 17 and 18** which depend therefrom, is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 17 recites the marker module is operative to deliver the billing strategy to the billing system. Neither Egendorf nor Melen disclose or suggest a marker module, nor do they disclose or suggest a marker module is operative to deliver a billing strategy to a billing system.

For the foregoing addition reason, **claim 17** is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 18 recites the print engine further comprises a xerographic printer. Neither Egendorf nor Melen disclose or suggest a xerographic printer.

For the foregoing addition reason, **claim 18** is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

Claim 19 recites a method for developing and using a universal billing module, the method comprising reading a stored billing strategy, instantiating meter data structures as directed by the read billing strategy, monitoring a document processing procedure as directed by the read billing strategy, and updating the metered data structures as directed by the read billing strategy. **Claim 19** was rejected for the same reasons as **claim 1**. Arguments similar to those submitted in support of **claim 1** are submitted in support of **claim 19**. Neither Egendorf nor Melen disclose or suggest reading a stored billing strategy, instantiating metered data structures as directed by the read billing strategy, monitoring a document processing procedure as directed by the

read billing strategy and updating the meter data structures as directed by the read billing strategy. For the foregoing reasons, **claim 19** is unanticipated and unobvious in light of Egendorf and Melen taken alone or in any combination.

**The Claims Point Out and Precisely Claim what
Applicants Regard as the Invention**

Claims 1-19 were further rejected under 35 U.S.C. § 112, second paragraph, for failing to point out and precisely claim what the Applicants regard as the invention. In making this rejection, the Office Action asserts that independent **claims 1, 6, 15, 16 and 19** are overly broad. Additionally, the Applicants were requested to delineate in precise detail the algorithms defining the function of the billing meters with appropriate equations, flow charts or relevant description.

With regard to the assertion that the claims are overly broad, the Applicants respectfully disagree. The measure as to whether a claim is too broad or not is whether or not a claim reads on a prior art reference or is obvious in light of a prior art reference. As explained above, the claims of the present application do not read on, and are not obvious in light of, the cited references. Therefore, the claims are not overly broad.

With regard to delineating in precise detail the algorithms defining the function of billing meters, there is no such requirement in the patent laws. Nonetheless, the application as a whole describes the invention. In addition to the claims, the attention of the Examiner is directed to FIGS. 2 and 4 of the present application as well as the specification starting on page 7, line 15, through page 11, line 28, wherein the specification delineates in precise detail several exemplary algorithms defining the function of billing meters including appropriate equations and relevant description.

For the foregoing reasons, it is respectfully submitted that the claims point out and precisely claim what the Applicants regard as the invention and the rejection under 35 U.S.C. §112 should be withdrawn.

CONCLUSION

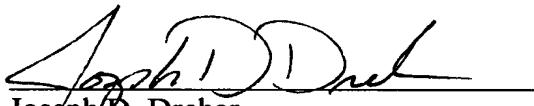
Claims 1-19 remain in the application. **Claims 20-22** have been added. For the foregoing reasons, the case is in condition for allowance. Accordingly, an early indication of thereof is requested.

Telephone Interview

In the interests of advancing this application to issue and compact prosecution, the Applicant respectfully requests that the Examiner telephone the undersigned to discuss any of the foregoing with which there may be some controversy or confusion or to make any suggestions that the Examiner may have to place the case in condition for allowance.

Respectfully submitted,

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